

REMARKS

Claims 1-8 are pending in the application and are rejected. Claim 1 is also objected to.

Telephone Interview

Applicant wishes to thank Examiner Chiem for her time and courtesy in granting a telephone interview on March 27, 2006 (referred to herein as "Interview") with the undersigned attorney. The claim amendments and observations set forth herein were discussed during the Interview.

Claim Amendments

Applicant requests entry of amendments to claim 1 as set forth above. The amendments change the word "structure" to ~~fiber~~ to conform the language of the claim to what is disclosed in the specification and is not intended to make any change to the scope of the claim. The amendments also change the phrase "~~from a first optical path through said lens~~" to read "along a first optical path from said lens" to clarify how the light propagates from the lens.

Examiner Chiem agreed to enter the amendments and also agreed that, due to the fact that claim 1 prior to amendment had recited the graded-index structure is formed in the optical fiber, the present amendment changing "structure" to ~~fiber~~ does not change the scope of the claim.

Another amendment to claim 1 that inserts the word ~~through~~ is discussed below.

Claim Objection

The Office Action indicates claim 1 is objected to because the last word "space" in the claim is thought to have been intended to be the word "spaced" instead.

The last word in the claim is intended to be "space" as currently recited. The first and second optical paths are space rather than some transmissive medium like silica glass.

Examiner Chiem acknowledged the intended meaning but asked that claim 1 be amended to make this meaning more clear. It was agreed to amend the last paragraph of claim 1 to read "wherein said first optical path and said second optical path are through space."

Claim Rejections

Claims 1-8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent application publication no. 2003/0002809 ("Jian") in view of U.S. patent 6,873,768 ("Duelli").

With respect to independent claim 1, the Office Action indicates Jian discloses all that is claimed except for the optical fibers emitting light at an angle inclined to the fibers' axis, that Duelli teaches optical fibers with ends cleaved at an angle to reduce reflections, and that it would have been obvious to combine the teaching from Duelli with the teachings in Jian to reduce reflections.

Amended claim 1 reads as follows (some text is omitted and letters are added to paragraphs in the claim for reference in the following discussion):

1. An optical monitor module comprising:

- (a) a substrate having formed in one surface thereof a positioning structure ...;
- (b) first and second optical fibers ..., said first optical fiber having an axis and a lens portion with a graded-index fiber formed integrally in one end of the first optical fiber for emitting light at an angle inclined to said axis of the first optical fiber, and said second optical fiber having an axis and a lens portion with a graded-index fiber formed integrally in one end of the second optical fiber for receiving light at an angle inclined to said axis of the second optical fiber; and
- (c) a beam splitter or optical filter mounted on said substrate at a position between an extension of said axis of said first optical fiber and an extension of said axis of said second optical fiber, for receiving light emitted along a first optical path from said lens portion of said first optical fiber and for reflecting a portion of said light along a second optical path to said lens portion of said second optical fiber;
- (d) wherein said first optical path and said second optical path are space.

In part, the Office Action states the following to support the conclusion that features of claim 1 are taught by the prior art:

- 1) the optical fibers each having a "lens portion with a graded-index structure formed integrally in one end" as described in paragraph (b) are disclosed in Jian because the "applicant does not explicitly and positively claim that the graded index structure is formed immediately at the distal end of the fiber";
- 2) the optical paths as described in paragraph (d) are disclosed in Jian by the distance between lens and optical fibers (the word "space" is thought to be intended to mean "spaced" as discussed above); and
- 3) the optical fibers each "emitting light at an angle inclined to [their respective] axis" is disclosed in Duelli as shown in Fig. 6 and described in the text at col. 6 lns. 5-9.

Applicant respectfully traverses the rejection of claim 1 because the combination of Jian and Duelli does not teach all claim limitations.

Paragraph (b) in claim 1 indicates each optical fiber has a "lens portion with a graded-index structure (now amended to read "graded-index fiber") formed integrally in one end." This language recites the lens is formed integrally in the end of each optical fiber. Jian teaches neither a graded-

index fiber (or structure) nor a lens formed in the end of an optical fiber. Instead, Jian discloses a device in which the optical fiber and the lens are separated by an optical component, which may be a layer of glass (see end of [0076]). An agreement was reached during the Interview that Jian does not disclose or suggest this feature of claim 1.

Paragraph (d) in claim 1 indicates the claimed optical paths are space. The reasoning given in the Office Action is based on an incorrect assumption. The optical path in Jian that is between the optical fibers and any other optical component is glass rather than space as claimed. An agreement was reached during the Interview that Jian does not disclose or suggest this feature of claim 1.

Paragraph (b) in claim 1 indicates each optical fiber emits light at an angle inclined to its axis. The Office Action implies this feature is disclosed in Duelli by indicating Duelli discloses an optical fiber with its end cleaved at an angle (that is, the cleaving is not orthogonal to the fiber axis) to reduce reflections; however, neither Duelli nor the Office Action states this cleaving causes light to be emitted at an angle to the fiber axis. Indeed, it does not. Even with the cleaving at an angle, light is still emitted along the fiber axis. This fact is confirmed in Duelli (see Fig. 1, col. 3 lns. 5-15, Fig. 7 and col. 6 lns. 24-27). An agreement was reached during the Interview that Duelli does not disclose or suggest this feature of claim 1.

Claims 2-8 are dependent on claim 1 and add further limitations thereto.

In view of the agreements reached during the Interview, the Examiner agreed to withdraw the rejection of the claims based on Jian and Duelli as set forth in the Office Action.

Respectfully submitted,



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Certificate of Transmission

I certify that this Response to Office Action and any following materials are being transmitted by facsimile on March 27, 2006 to the U.S. Patent and Trademark Office at telephone number (571) 273-8300.



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